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Pathweb User Guide

Introduction

As part of NCDOT's Contract with Pathway Services, Inc, web-based viewing software, "PathWeb", was acquired. This allows NCDOT users to see right-of-way and distress imagery for any roadway on which data was collected. At present, this is limited to the primary and interstate systems. It is anticipated that the imagery will be updated annually with 2-3 cycles of data made available at any given time. In addition, various NCDOT datasets have been included that can be shown on a zoomable map.

This user guide will get you up and running.

Accessing Pathweb

Pathweb can only be accessed from an NCDOT networked computer or via VPN if you are at home or a remote location. No login is required.

Microsoft Silverlight must be installed for Pathweb to work properly. This is a common install on most NCDOT computers but if your computer is older, you may need to request an install or update.

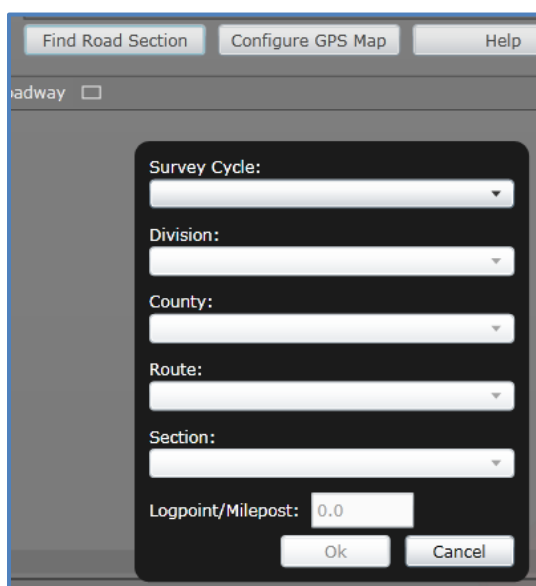http://pathweb.dot.nc.net/pathweb/

On accessing the website, you will see a loading screen. Once the application is loaded, you will see a largely empty, dark gray window called the dashboard:

Finding a road section

Clicking the "Find Road Section" button in the upper left corner of the dashboard will open the Dialog box:

Starting with "Survey Cycle," fill in each field from the drop-down list in the Dialog box. Here's an example of a completed dialog:
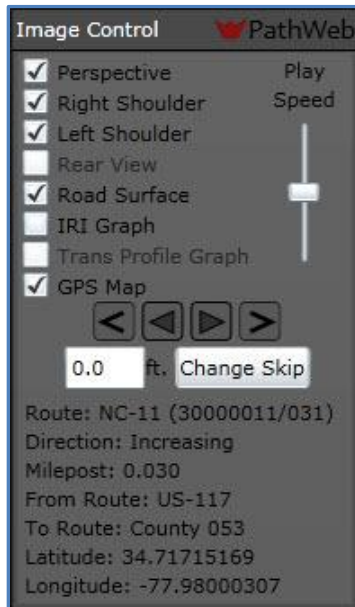

Once the entire dialog is filled in, click "Ok" and Pathweb will load the road section. Your data is now ready for viewing.

Now it's time to tell Pathweb exactly what data you want to show.
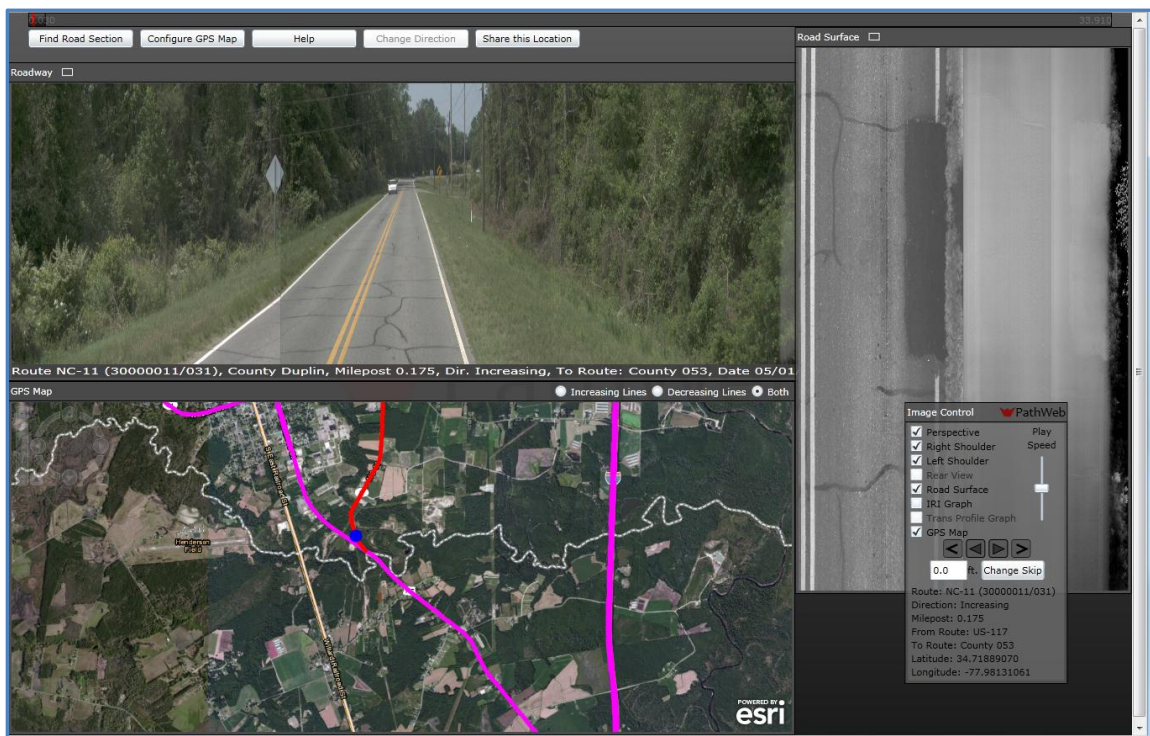
Viewing Data in Pathweb

In order to view data, windows must be activated using the "Image Control" dialog box:

- *Perspective --* Center Camera
- *Right Shoulder --* Right Shoulder Camera
- *Left Shoulder --* Left Shoulder Camera
- *Rear View --* Rear View Camera *(Not currently available)*
- *Road Surface --* 2D and 3D Images of the Road Surface
- *IRI Graph --* Instantaneous longitudinal roughness
- *Trans Profile Graph --* Cross Section of the Road *(Not currently available)*
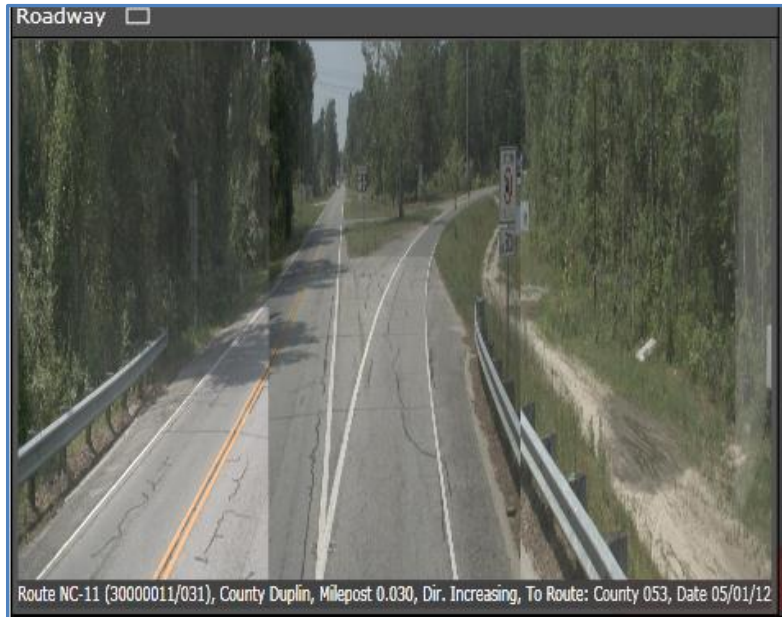- *GPS Map --* Street/Satellite View Map

  (NOTE: We'll discuss the rest of the controls once we have a road section to look at.)

Your dashboard should look similar to this with the options check-marked above:

Like MS Windows, each data window on the Pathweb dashboard is easily resizable and movable via clicking and dragging with your mouse. For example, when you first activate all three right-of-way cameras (Perspective, Right Shoulder, Left Shoulder), the images will appear compressed into a small frame like this:

Roadway

Route NC-11 (30000011/031), County Duplin, Milepost 0.030, Dir. Increasing, To Route: County 053, Date 05/01/12

To resize it, just use your mouse to grab an edge or corner and drag it to suit your tastes.

Roadway

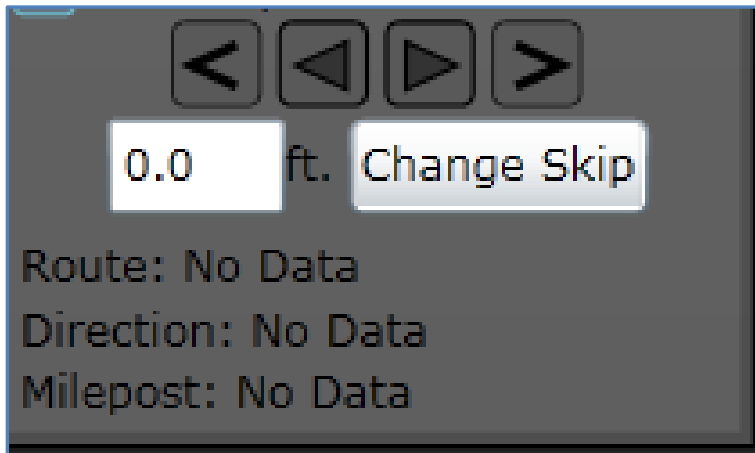Route NC-11 (30000011/031), County Duplin, Milepost 0.030, Dir. Increasing, To Route: County 053, Date 05/01/12

You can also move it around your dashboard by grabbing the top of the frame and dragging it wherever you would like.
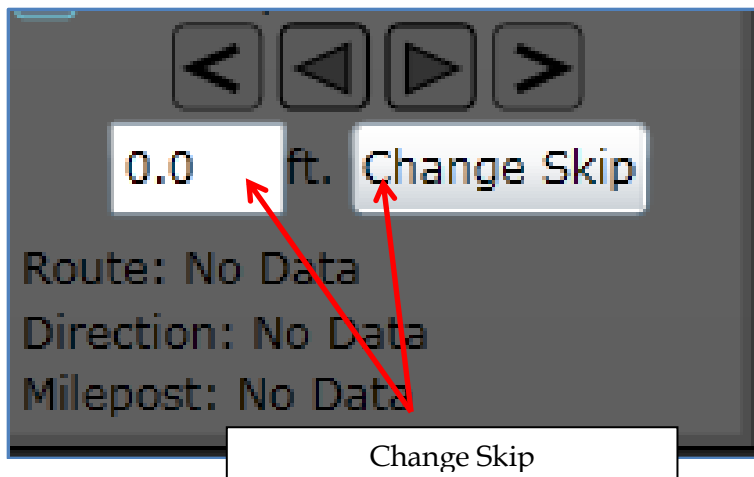
Navigating in Pathweb

Moving through the data

The Image Control Box allows you to move forward and backward through the data with VCR like controls. You can also alter the rate of travel by moving the "Play Speed" slider up and down.

The skip feature is also helpful to cover ground more quickly while in playback mode.

Change Skip

The skip feature allows you to advance both forward and backward at a set distance. Simply enter a value (in feet) in the appropriate box and click "Change Skip." To go back to viewing every image available, change the value back to "0" and click "Change Skip" again.

Zooming

The right-of-way image can be zoomed for detailed views of signs or other roadside information by clicking on the image and the holding down SHIFT while using the mouse scroll wheel. The high resolution of the imagery means that significant detail can be made out.
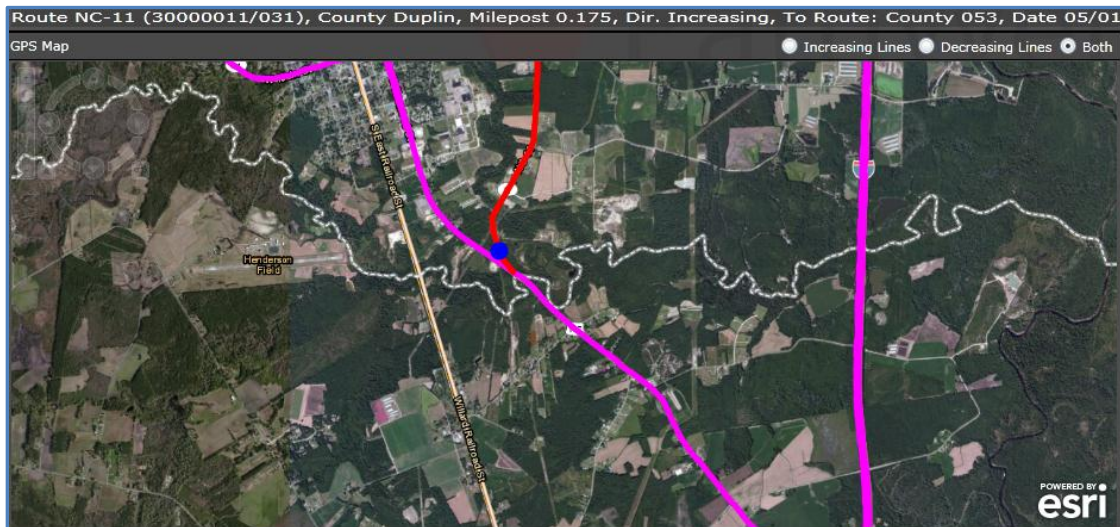

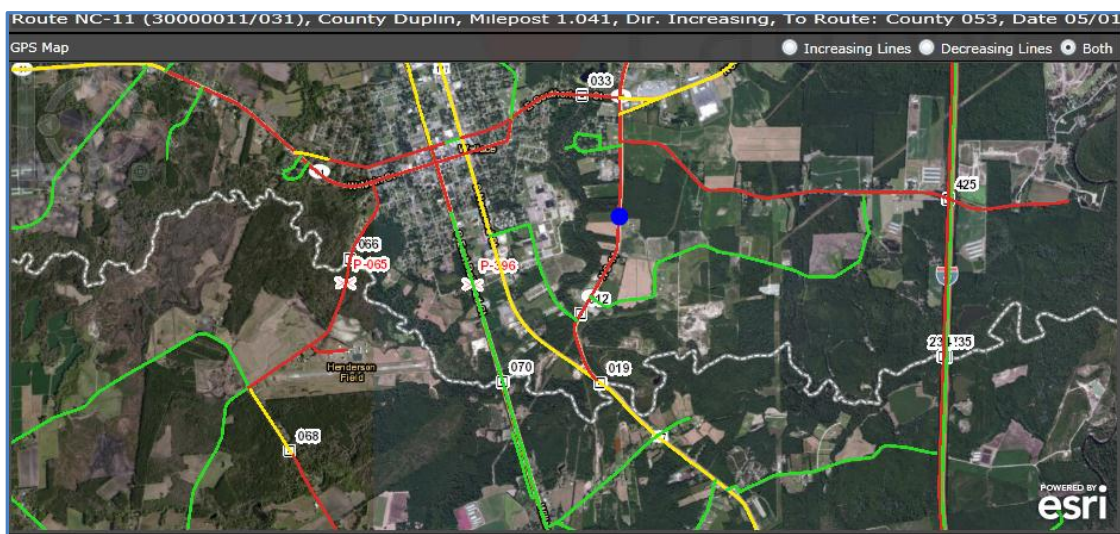**Figure 1 - Before Zoom**

Figure 2 - After Zoom

The GPS Map Window

The GPS Map Window provides the ability to navigate by clicking and also allows the display of several types of data. By default, it shows a satellite imagery view, any roads with data in magenta, and the selected route in red.

You can click on the window and use the mouse scroll wheel to zoom in or out.

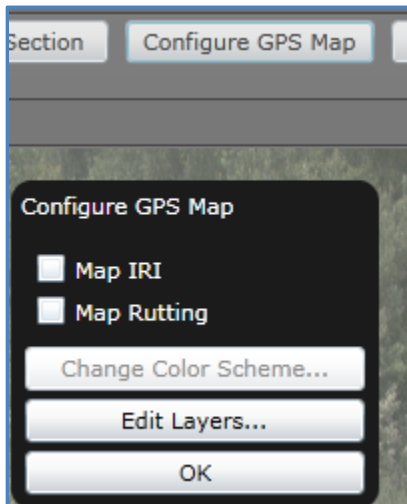This second screenshot of the GPS Map Window looks quite different.

This is because additional layers are available to customize the map. This window is displaying current Pavement Condition Ratings (for all roads) as well as bridge locations. To display this data you'll have to configure the GPS Map Window.
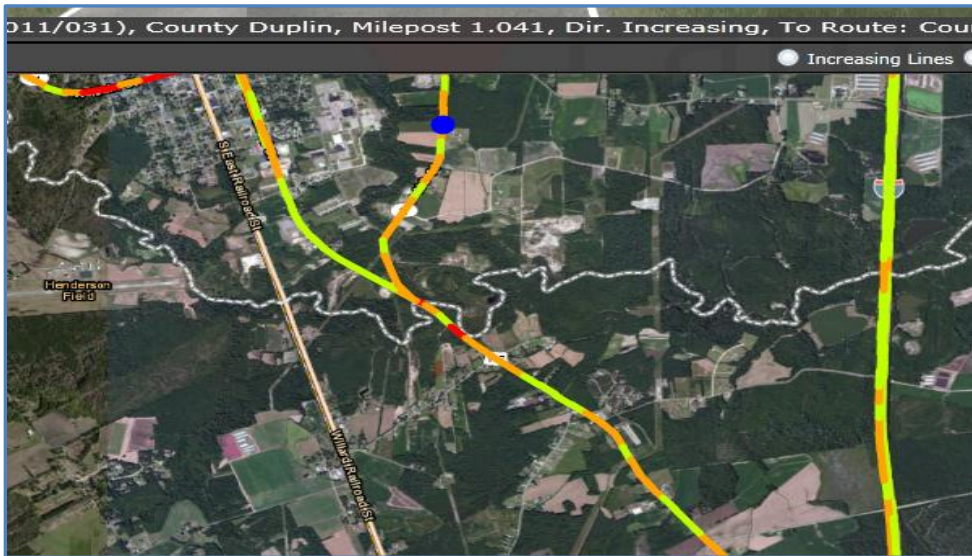
Configuring the GPS Map Window

To begin changing the data to be displayed on the GPS Map, click the "Configure GPS Map" button at the top of the dashboard to bring up the dialog.
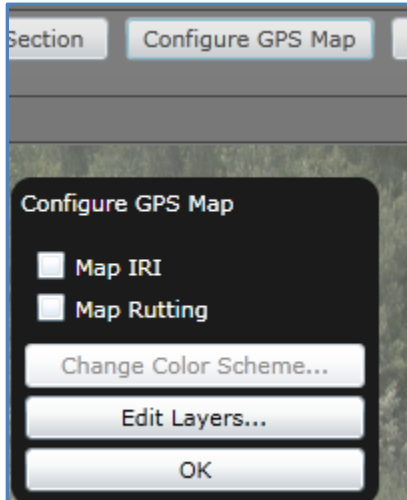

Choosing "Map IRI" or "Map Rutting" uses the continuous data provided by Pathway Services (in other words, it isn't aggregated to sections). IRI is mapped below. The color scale can be adjusted by the end user using the "Change Color Scheme" button shown above.
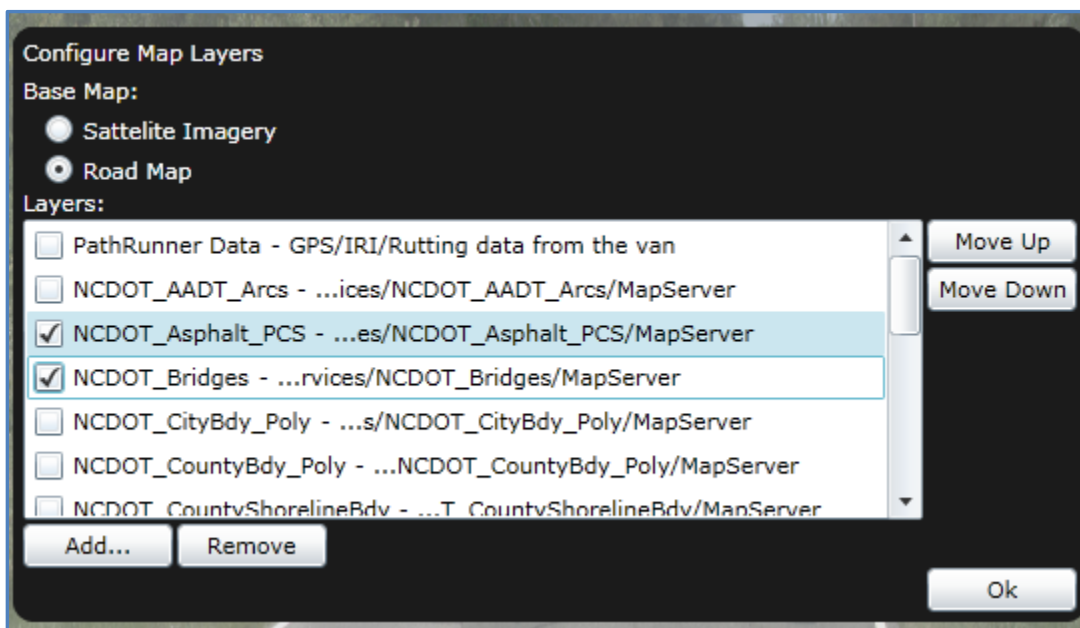

To create a map similar to one shown above that shows PCR and Bridges, follow the steps below:

Click on "Configure GPS Map" and then click the "Edit Layers" button.

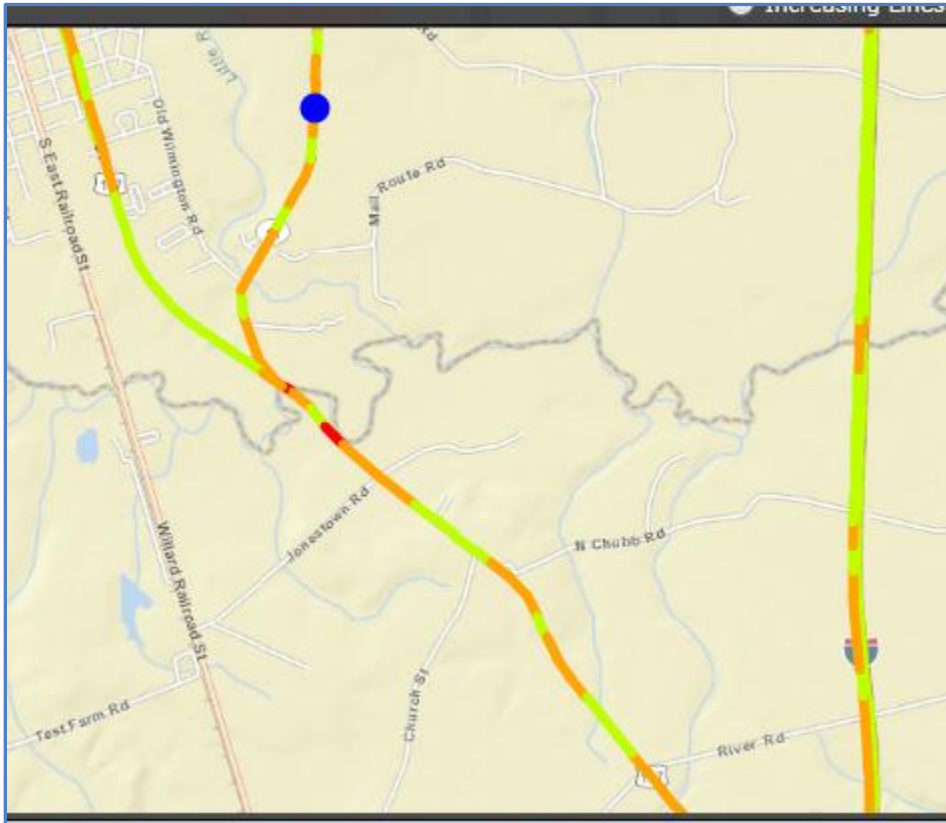This will bring up a list of layers you can apply to your GPS Map.

1. Uncheck "PathRunner Data"
2. Check "NCDOT_Asphalt_PCS" and "NCDOT_Bridges"
3. Click "OK" and you have a GPS Map showing Asphalt ratings and bridge locations.

Many data layers that are available in Spatial Data Viewer are also available for viewing in Pathweb. If you don't see your favorite SDV layer, let us know and we can probably add it to the system.
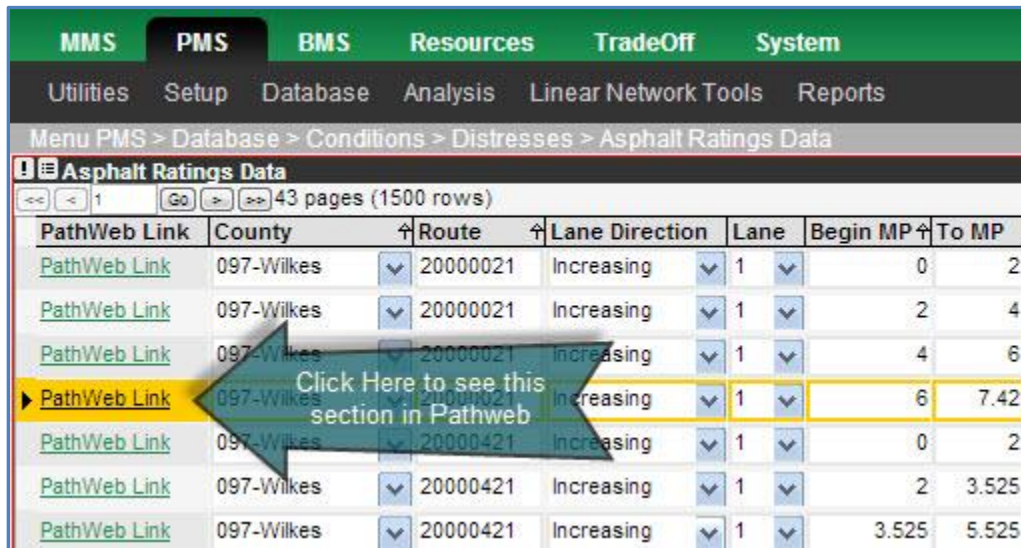
Sometimes a roadmap may be more useful or clear than satellite imagery. Here is an IRI map using the roadmap option.

Pathweb & the AMS

In an effort to integrate Pathweb with the AMS, pavement sections in condition data windows now offer a direct link Pathweb. Just click the link and a new browser tab will pop up taking you directly to the section you've chosen.

This link is available in the following tables:

- Asphalt Ratings Data
- JCP Ratings Data
- CRC Ratings Data
- Skid Test Data
- Profiler Data
- Network Master Data

NOTE: This option is only available for data from 2012 and after and only for Primary routes. Secondary routes are not included.

Conclusion

Please don't be shy with experimenting with the system. Click and zoom as you will. If you get stuck, have suggestions or any questions contact any of the following in the Pavement Management Unit:

- Neil Mastin, jmastin@ncdot.gov, 919-835-8212
- Randy Finger, afinger@ncdot.gov, 919-835-8209
- Tripp Smith, ersmith@ncdot.gov, 919-835-8210